stores the electrical signals output by said sensing elements and outputs the electrical signals to the signal processor,

wherein said signal processor [receives] uses the electrical signals output from said memory to determine the first and second electrical signals and stores the first and second electrical signals in said memory,

wherein said signal processor [receives] uses the first and second electrical signals output from said memory to determine the at least one control signal.

15. (Amended) The automatic rearview mirror system defined by Claim 1, wherein said signal processor samples the electrical signals indicative of the sensed light levels at a substantially constant sampling rate and varies the exposure time [depending on] relative to the background light level [in the area rearward of said at least one variable reflectance rearview mirror].

19. (Amended) The automatic rearview mirror system defined by Claim 16, wherein said signal processor determines the first electrical signal indicative of the background light level by using [calculating an average of] X percent of the photosensor element signals indicative of the light levels of light incident on said photosensor elements, [where] wherein X is a positive number not greater than 100, and averaging said X percent of the photosensor element signals.

21. (Amended) The automatic rearview mirror system defined by Claim 16, wherein said signal processor determines the first electrical signal indicative of the background light level by using [calculating an average of] X percent of the photosensor element signals indicative of the lowest light levels of light incident on said photosensor elements, wherein X is a positive number not greater than 100, and averaging said X percent of the photosensor element signals.

24. (Amended) The automatic rearview mirror system defined by Claim 16, wherein said signal processor determines the second electrical signal indicative of the at least one peak light level by using [determining the average value of] Y percent of the photosensor element signals indicative of the highest light levels of light incident on a predetermined set of said photosensor elements, wherein Y is a positive number not greater than 100, and averaging said Y percent of the photosensor element signals.

46. (Amended) A control system for controlling a plurality of variable reflectance mirrors, each of which change their reflectance level in response to a drive signal from an associated drive circuit, for an automotive vehicle, comprising:

a plurality of variable reflectance mirrors;

a photosensor array mountable to face substantially towards a [rear] rearward area, wherein said

photosensor array comprises a plurality of photosensor element sets, each set comprising a plurality of photosensor elements, each of said photosensor elements generating a photosensor element signal indicative of a light level of light incident thereon, and each of the sets corresponding to one of said plurality of variable reflectance mirrors,

a control circuit, connected to said photosensor array, for determining and applying a plurality of control signals, each of the control signals indicative of a desired reflectance level for each of said plurality of variable reflectance mirrors in response to receiving the photosensor element signals from each of the plurality of photosensor element sets,

a plurality of drive circuits connected to said control circuit, each of said plurality of drive circuits being connected [and] to different ones of said plurality of variable reflectance mirrors associated therewith,

wherein each of the control signals is output to said drive circuit associated therewith, to generate and apply a drive signal to each of said plurality of variable reflectance mirrors causing each of said mirrors to assume a reflectance level.

48. (Amended) The control system defined by Claim 47, wherein said photosensor array comprises a first set and a second set of photosensor elements, and a lens for focusing

light from a [rear window] rearward area onto said photosensor array,

wherein said control circuit determines a first peak light signal indicative of a peak light level incident on the first photosensor element set in response to receiving photosensor element signals from the first photosensor element set,

wherein said control circuit determines another peak light signal indicative of another peak light level incident on the second photosensor element set in response to receiving photosensor element signals from the second photosensor element set,

wherein said control circuit determines a first control signal indicative of a desired reflectance for one of said plurality of variable reflectance mirrors using the first peak light signal and the background light signal,

wherein said control circuit determines a second control signal indicative of another desired reflectance for another of said plurality of variable reflectance mirrors using the another peak light signal and the background light signal,

wherein the first control signal controls a first drive circuit to generate a first drive signal in response to which said one of said plurality of variable reflectance mirrors is driven to the desired reflectance associated therewith, and

wherein said second control signal controls a second drive circuit to generate a second drive signal in response to which said another of said plurality of variable reflectance mirrors is driven to the desired reflectance associated therewith.

49. (Amended) The control system defined by Claim 48, wherein said plurality of variable reflectance mirrors comprise a rearview mirror, a left side view mirror and a right side view mirror,

wherein said light from [at least one side window] <u>said rearward</u> area comprises <u>light from a rear window area,</u> light from a left side window area and light from a right side window area,

wherein said photosensor array further comprises a third photosensor element set, each of said photosensor elements generating a photosensor element signal indicative of a light level incident thereon,

wherein said control circuit determines a first peak light signal indicative of a peak light level incident on the first photosensor element set in response to receiving photosensor element signals from the first photosensor element set,

wherein said control circuit determines a second peak light signal indicative of a second peak light level incident on the second photosensor element set in

response to receiving photosensor element signals from the second photosensor element set,

wherein said control circuit determines a third peak light signal indicative of a third peak light level incident on the third photosensor element set in response to receiving photosensor element signals from the third photosensor element set,

wherein said control circuit determines a first control signal indicative of a desired reflectance level of said rearview mirror using the first peak light signal and the background light signal,

wherein said control circuit determines a second control signal indicative of a desired reflectance level of said left side view mirror using the second peak level signal and the background light signal,

wherein said control circuit determines a third control signal indicative of a desired reflectance level of said right side view mirror using the third peak light signal and the background light signal,

wherein said first control signal controls a first drive circuit to generate a first drive signal in response to which said rearview mirror is driven to the desired reflectance level associated therewith,

wherein said second control signal controls a second drive circuit to generate a second drive signal in response to which said left side view mirror is driven to the desired reflectance level associated therewith, and

wherein said third control signal controls a third drive circuit to generate a third drive signal in response to which said right side view mirror is driven to the desired reflectance level associated therewith.

53. (Amended) The control system defined by Claim 51,

wherein said photosensor array means comprises a plurality of photosensor elements, each photosensor element generating a photosensor element signal indicative of a light level of light incident thereon,

wherein said means for determining a background light signal determines a background light signal by <u>using</u> [calculating an average of] X percent of the photosensor element signals, wherein X is a positive number <u>not greater than 100, and averaging said X percent of the photosensor element signals</u>.

55. (Amended) The control system defined by Claim 51, wherein said photosensor array means comprises a plurality of photosensor elements, each photosensor element generating a photosensor element signal indicative of a light level of light incident thereon,

wherein said means for determining a background light signal determines a background light signal by <u>using</u> [calculating an average of] X percent of the photosensor element signals indicative of the lowest light

levels incident on said photosensor elements, wherein X is a positive number not greater than 100, and averaging said X percent of the photosensor element signals.

58. (Amended) The control system defined by Claim 51, wherein said photosensor array means comprises a plurality of photosensor elements for sensing light levels in an area rearward of said at least one variable reflectance mirror, each photosensor element generating photosensor element signals indicative of a light level incident thereon,

wherein said means for determining a peak light signal determines a peak light signal by determining the average value of Y percent of the photosensor element signals indicative of the highest light levels of light incident on a predetermined set of said photosensor elements, wherein Y is a positive number not greater than 100, and averaging said Y percent of the photosensor element signals.

62. (Amended) The control system defined by Claim 51, wherein said [desired reflectance level determining] means for determining a peak light signal tests the photosensor array signals to determine whether each photosensor array signal is indicative of a peak light level [or a background light level], and

wherein said means for determining a background light signal tests the photosensor array signals

to determine whether each photosensor array signal is indicative of a background light level.

65. (Amended) The control system defined by Claim 62, wherein said [desired reflectance level determining] means for determining a peak light signal determines a value indicative of the sensed light level corresponding to each photosensor array signal and compares each determined value with a predetermined peak threshold value to determine whether each photosensor array signal is indicative of a peak light level [or a background light level], and

wherein said means for determining a background light signal determines a value indicative of the sensed light level corresponding to each photosensor array signal and compares each determined value with a predetermined peak threshold value to determine whether each photosensor array signal is indicative of a background light level.

66. (Amended) The control system defined by Claim 65,

wherein said [desired reflectance level determining] means for determining a background light signal determines that a photosensor array signal is indicative of a background light level when the determined value indicative of the sensed light level corresponding to one of the

photosensor array signals is not greater than the peak threshold value, and

wherein said [desired reflectance level determining] means <u>for determining a peak light signal</u> determines that a photosensor array signal is indicative of a peak light level when the determined value indicative of the sensed light level corresponding to the one of the photosensor array signals is [greater] <u>not less</u> than the peak threshold value.

68. (Amended) The control system defined by Claim 66, wherein said [desired reflectance level determining] means <u>for determining the background light signal</u> determines the background light signal by summing the determined values determined to be not greater than the peak threshold value and dividing the resulting sum by the number of determined values determined to be not greater than the peak threshold value.

69. (Amended) The control system defined by Claim 66, wherein said [desired reflectance level determining] means <u>for determining the peak light signal</u> counts the number of determined values [greater] <u>not less</u> than the peak threshold value in a predetermined set of determined values corresponding to a predetermined set of photosensor elements of said photosensor array means and determines the peak light signal in the area rearward of the

at least one variable reflectance mirror as a function of the number of determined values [greater] not less than the peak threshold value in the predetermined set of determined values.

70. (Amended) The control system defined by Claim 65, further comprising a means for applying a color correction factor,

wherein said photosensor array means is located in the at least one variable reflectance mirror so as to receive light through an active layer of said at least one variable reflectance mirror from the area rearward of said at least one variable reflectance mirror, and

wherein said [desired reflectance level determining] means for applying a color correction factor applies a color correction factor to each value indicative of the sensed light level for each photosensor array signal to compensate for the reduction in transmitted light levels when the reflectance level of the at least one variable reflectance mirror is reduced.

78. (Amended) The method defined by Claim 76, wherein said step of determining a background light level comprises the step of determining a background light level by using [calculating an average of] X percent of the sensed light levels, wherein X is a positive number not greater than

100, and averaging said X percent of the photosensor element signals.

79. (Amended) The method defined by Claim 76, wherein said step of determining a background light level comprises the step of determining a background light level by using [calculating an average of] X percent of the lowest sensed light levels, wherein X is a positive number not greater than 100, and averaging said X percent of the photosensor element signals.

80. (Amended) The method defined by Claim 76, wherein said step of determining a peak light level comprises the step of determining a peak light level by using [calculating an average of] Y percent of the sensed light levels indicative of the highest sensed light levels, wherein Y is a positive number not greater than 100, and averaging said Y percent of the photosensor element signals.

Please add independent Claim 88, dependent Claims 89-95, independent Claim 96 and dependent Claims 97-104 as follows:

--88. An automatic rearview mirror system for an automotive vehicle comprising:

a variable reflectance interior rearview mirror,

at least one variable reflectance exterior side view mirror;

a photosensor mounted on said interior rearview mirror so that its field of view encompasses a rearward area comprising a rear window area and at least one side window area,

wherein said automatic rearview mirror system uses said photosensor to control independently the reflectance of said variable reflectance interior rearview mirror and said at least one variable reflectance exterior side view mirror without the need for additional and separate photosensors for detecting light levels in said rearward area.

89. The automatic rearview mirror system of Claim 88, wherein said variable reflectance interior rearview mirror and said at least one variable reflectance exterior side view mirror each comprise an electrochromic mirror.

90. The automatic rearview mirror system of Claim 89, wherein said automatic rearview mirror system uses said photosensor to continuously control the variable reflectance of said interior rearview and exterior side view mirrors.

91. The automatic rearview mirror system of Claim 90, wherein said photosensor is a photosensor array.

92. The automatic rearview mirror system of Claim 90, wherein said photosensor is a single chip video camera.

93. The automatic rearview mirror system of Claim 91, wherein said at least one exterior side view mirror comprises at least one of an exterior left side view mirror and an exterior right side view mirror.

94. The automatic rearview mirror system of Claim 92, wherein said at least one exterior side view mirror comprises at least one of an exterior left side view mirror and an exterior right side view mirror.

95. The automatic rearview mirror system of Claim 93, wherein said at least one exterior side view mirror comprises an exterior left side view mirror and an exterior right side view mirror.

96. An automatic electrochromic rearview mirror system for an automotive vehicle comprising:

an interior electrochromic rearview mirror;

at least one exterior electrochromic side view mirror;

at least one rearwardly detecting photosensor,

wherein said at least one rearwardly detecting photosensor is used to control independently said interior

electrochromic rearview mirror and said at least one exterior electrochromic side view mirror.

97. The automatic electrochromic rearview mirror system of Claim 96, wherein said at least one rearwardly detecting photosensor comprises at least two rearwardly detecting photosensors.

98. The automatic electrochromic rearview mirror system of Claim 96, wherein said at least one rearwardly detecting photosensor detects light levels through at least a rear window.

99. The automatic electrochromic rearview mirror system of Claim 96, wherein said at least one rearwardly detecting photosensor detects light levels through a combination of a rear window and at least a portion of at least one side window.

100. The automatic electrochromic rearview mirror system of Claim 97, wherein said at least two rearwardly detecting photosensors are mounted on said interior electrochromic rearview mirror.

101. The automatic electrochromic rearview mirror system of Claim 97, wherein one of said at least two rearwardly detecting photosensors is mounted on said interior

electrochromic rearview mirror and an other of said at least two rearwardly detecting photosensors is mounted on said at least one electrochromic side view mirror.

102. The automatic electrochromic rearview mirror system of Claim 97, wherein said at least two rearwardly detecting photosensors comprise a first rearwardly detecting photosensor generally detecting light levels in a center rearward area and a second rearwardly detecting photosensor generally detecting light levels in a side view area.

103. The automatic electrochromic rearview mirror system of Claim 102, wherein said first rearwardly detecting photosensor and said second rearwardly detecting photosensor are located within an interior of said automotive vehicle.

104. The automatic electrochromic rearview mirror system of Claim 103, wherein said first rearwardly detecting photosensor and said second rearwardly detecting photosensor are located on said interior electrochromic rearview mirror.--

REMARKS

Original Claims 1-87 and added Claims 88-104 are pending in this application. By this Amendment, Applicants seek to amend Claims 12, 15, 19, 21, 24, 46, 49, 53, 55, 58, 62, 65, 66, 68-70 and 78-80, and to add independent Claim 88,